

REMARKS

Claims 1-28 are currently pending in the application. Claims 2-4 and 10-28 have been withdrawn. Claims 1 and 9 have been amended herein. New claim 29 has been added herein.

The drawings are objected to as failing to comply with 37 CFR §1.84(p)(5) because a figure includes reference characters not mentioned in the description. Specifically, the Action notes that reference character 102A and 102B of Fig. 9 are not mentioned in the description. The specification has been amended herein to include the noted reference characters.

The drawings are objected to because parts in section are not hatched and parts in elevation are not shaded according to 37 CFR 1.84(h)(3) and 37 CFR 1.84(m). The Action does not specifically identify the figures that are objectionable. Figures 4A, 4B, 5A, 5B, 6, 8, 9, 10, 11, 41A, 41B, and 42 all currently have cross-hatching. However, the lines of the cross-hatching may not be spaced sufficiently apart to be distinguished. Consequently, replacement sheets bearing the noted Figures are attached hereto. Further, replacement sheets that are identical to the sheets of formal drawings that were filed in the parent application of the current application are also being provided.

With respect to parts in elevation, there do not appear to be any drawings that the understanding thereof would be aided by shading. If the figures that the Office deems the understanding thereof would be enhanced by shading could be identified, the assignee will submit amended drawings.

Claim 9 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The Action requires that the claim be limited to the elected species. The claim has been so amended.

Claim 1 has been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,318,970 (hereinafter referred to as "the '970 patent") to Backhouse.

Independent claim 1 is directed to a microfluidic structure comprising: (a) a structure defining an input structure for receiving a microfluidic stream, an output structure for

transmitting a microfluidic stream, and a space between the input and output structures, (b) a colloidal structure that is located in the space between the input and output structures and comprises a solid colloidal particle, and (c) means for applying a field to the colloidal structure such that the solid colloidal particle directly contacts a microfluidic stream to move the microfluidic stream between the input and output structures.

The '970 patent is directed to fluidic device. More specifically, the Action cites Figs. 9A-9D of the '970 patent, which illustrate a device in which a drive fluid is recirculated around a loop channel that intersects with a flow channel that carries a driven fluid. In each of the embodiments illustrated in Figs. 9A-9D, drops of drive fluid are moved along the main channel 90 from point 94 to point 96 by a magnetic drive 110. As the drops of drive fluid move along the main channel, the driven fluid is dragged along with the drive fluid by frictional contact. See col. 5, line 24 through col. 6, line 25. The drive fluid apparently is a ferrofluid that is a colloidal suspension of magnetic particles in a carrier liquid. The drive fluid is, however, a fluid and not a solid. In contrast, the invention of claim 1 applies a field such that a solid colloidal particle, as opposed to a fluid, directly contacts a microfluidic stream to move the microfluidic stream between input and output structures. Stated differently, the '970 patent utilizes liquid to force a driven liquid along a path, while the invention of claim 1 utilizes a solid to force a driven liquid along a path. Based on the foregoing, it is respectfully asserted that the invention set forth in claim 1 is patentable and, as such, the issuance of a notice of allowance is requested.

Claims 5-9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the '970 patent.

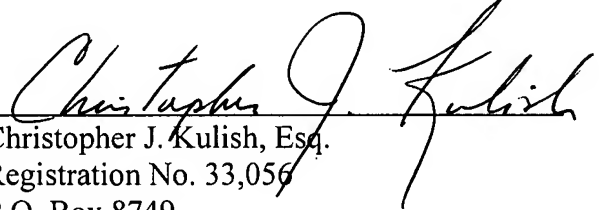
Each of claims 5-9 is a dependent claim that depends either directly or indirectly from independent claim 1. Consequently, each of these dependent claims is at least allowable for the reasons noted with respect to independent claim 1. However, each of these dependent claims may be allowable for other reasons, and the assignee explicitly reserves the right to assert any such reasons in the future.

No claim related fees are believed to be due with this response. In the event any such fees are due, please debit Deposit Account 08-2623.

The application now appearing to be in form for allowance, reconsideration and allowance thereof is respectfully requested.

Respectfully submitted,

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